

action mailed October 1, 2002. The Examiner's comments have been carefully considered, and are addressed in the paragraphs which follow. The paragraph numbers in this response correspond to the paragraph numbers in the Examiner's office action.

#### ***TITLE***

By the foregoing amendment, the title of the application has been changed to "Apple Tree Named 'CJ07'."

#### ***OBJECTION TO THE DISCLOSURE***

The examiner has objected to the disclosure, citing 37 C.F.R. 1.163 and 35 U.S.C. §§112 and 162. The examiner has asserted that the specification presents less than a full, clear and complete botanical description of the plant and the characteristics which define same per se and which distinguish the plant from related known cultivars and antecedents.

The applicable standard for the written description of the new plant variety claimed in the present application is the "complete as reasonably possible" standard set forth in 35 USC 162. The standard is further borne out in 37 CFR 1.163(a):

The specification must contain as full and complete a disclosure as possible of the plant and the characteristics thereof that distinguish the same over related known varieties, and its antecedents...

In the present application, the applicant has provided a skillfully written botanical description of the new plant to be patented, including a description of the characteristics of the new plant that distinguish over its parent and other known varieties.

35 USC 162 acknowledges that an enabling written description cannot be provided for a plant, and so allows instead a reasonably complete description. Applicant asserts that for the purposes of a plant patent specification, a reasonably complete description identifies the novel, distinguishing, and non-variable characteristics of a new plant variety, and additionally points out commercially relevant features of the variety. A reasonably complete description does not include every quantifiable feature of the plant. While a highly detailed description may have merit for some purposes (such as breeding program records, botanical publications, researcher's notes, etc.), it is neither required by law nor appropriate in a plant patent application.

A highly detailed and exacting patent specification may be appealing to a botanist, a patent examiner, or a patent applicant, but it is not more useful or valuable in enforcing the exclusive rights of the patent owner than a reasonably complete specification that points out the distinguishing characteristics of the variety.

Many of the characteristics for which the examiner has requested additional descriptive information are subject to substantial variability. Some of the variables which can affect the observable characteristics of fruit trees include: soil type; fertilizers and agricultural chemicals; weather; climate; watering; plant stress; cultural practices; and disease.

A quantitative recitation of variable characteristics fails as a "reasonably complete" description as required by the statute. Without taking into consideration the unique attributes of plants as patentable subject matter, one might conclude that if some description is good, i.e., reasonably complete, then more description must be better. In a utility patent application, this may be true. In a plant patent, however, no such enabling description is required, or even possible. The botanical description in a plant patent application is intended to aid in identifying the claimed plant,

not to enable the reader to make the invention. A botanical description which exceeds the reasonably complete standard by providing description of variable characteristics does not aid in identifying the plant, but in fact introduces vague and ambiguous information. Rather than serving to improve the quality of the disclosure in a plant patent application, the addition of unnecessary, vague or ambiguous information diminishes its value as an aid in identifying the claimed plant. A reasonably complete description of a plant is limited to non-variable characteristics which are used by those skilled in the art to identify plants of the variety claimed.

The present application has been rejected because the specification does not include specific botanical information the examiner has selected and determined to be necessary to a complete botanical description. The application as filed, and certainly as amended, contains a substantial and reasonable botanical description of the claimed plant, and differentiates the new cultivar over the parent and other known cultivars.

The following paragraphs address the examiner's comments, in the order in which they appear in the office action:

- A. Latin name of genus and species: By the foregoing amendment, the specification has been amended to properly refer to the genus and species of the new cultivar.
- B. Cultivar names: By the foregoing amendment, the specification has been amended to include single quotation marks when referring to cultivar names.
- C. Comparison with parent(s): The new cultivar is a sport mutation of 'Sciearly' which is the subject of U.S. Patent No. 11,092, issued October 12, 1999. The specification as filed provides a full and complete botanical description of the new cultivar, and distinguishes it from its parent 'Sciearly' and other known cultivars. Applicant asserts that no additional

description of the new cultivar is required to distinguish 'CJ07'.

- D. "Temporary Denomination": The new cultivar is named 'CJ07'. By the foregoing amendment, the reference to a "temporary denomination" at page 1, line 10 has been removed.
- E. Sport vs. whole tree mutation: The new cultivar is a whole tree mutation of 'Sciearly.' By the foregoing amendment, the specification has been amended to clearly identify the origin of the new cultivar as a whole tree mutation.
- F. Block coloration: The phrase "dark red block color" refers to the over-color of the fruit of the new cultivar, which is further described in the specification at page 4, line 21. The term "block" refers to the solid pattern of the over-color, and can be contrasted with striped, mottled or faded over-color. The new cultivar does not differ from the parent tree in this regard. U.S. Plant Patent No. 11,092 describes the fruit of the 'Sciearly' tree as having an "overall dark red block color pattern." (See Abstract). No correction is believed to be required on this point.
- G. Tree size and vigor: The specification describes the tree of the new cultivar as being of medium size and vigor. No difference in size and vigor between the new cultivar and the parent tree has been noted. U.S. Plant Patent No. 11,092 describes the 'Sciearly' tree as "medium" size and "medium" vigor (See Col. 2, lines 18, 19). Applicant asserts that no more detailed description of the size and vigor of the new cultivar is required in the present application.
- H. Lenticels: The lenticels of the new cultivar have not been noted to be distinguishable from those of the parent tree. U.S. Plant Patent No. 11,092 describes the lenticels of the 'Sciearly'

tree as "average numbers" and "large size" (See Col. 2, line 25). Applicant asserts that no more detailed description of the lenticels of the new cultivar is required in the present application.

- I. Leaves: The leaves of the new cultivar have been described at page 3, line 20 through page 4, line 1 of the specification as filed, and are pictured in Figures 1 and 4 of the photographs. Applicant asserts that no more detailed description of the leaves of the new cultivar is required in the present application.
- J. Petiole: The petiole of the new cultivar is described at page 3, line 22 of the specification as filed, and is pictured in Figures 1 and 4 of the photographs. Applicant asserts that no more detailed description of the leaves of the new cultivar is required in the present application.
- K. Stipule size: The stipule of the new cultivar is described at page 3, line 22 of the specification as filed. Applicant asserts that no more detailed description of the stipule of the new cultivar is required in the present application.
- L. Length and diameter of flower bud: The flower bud of the new cultivar is described at page 3, line 22 of the specification as filed. Applicant asserts that no more detailed description of the stipule of the new cultivar is required in the present application.
- M. Color of flower: The examiner has suggested that the color of the flower does not identically match the flower depicted in FIG. 4. When viewed in natural light at midday, the petals of a fully opened flower are white. As noted in the specification as filed, the flower buds are pink [RHSCC 55b] and fade to white as they open. It is clear in FIG. 4 that the buds are pink, as described, and that the opening blossom is far paler than the bud, with the tips of the blossom white in color. The blossom will continue to fade to white as it opens. It must also

be pointed out that, while every effort is made to depict the color of the buds, blossoms, and other parts of the claimed plant as accurately as possible using photographic reproductions, color representations are subjective, and may vary slightly from the color chart reference.

- N. Flower: The flower of the new cultivar is described at page 4, lines 3-6 of the specification as filed. Applicant asserts that no more detailed description of the flower of the new cultivar is required in the present application.
- O. Flower petal: The flower of the new cultivar is described at page 4, lines 3-6 of the specification as filed. Applicant asserts that no more detailed description of the flower of the new cultivar is required in the present application.
- P. Sepal: The flower of the new cultivar is described at page 4, lines 3-6 of the specification as filed. Applicant asserts that no more detailed description of the flower of the new cultivar is required in the present application.
- Q. Reproductive organs: The flower of the new cultivar is described at page 4, lines 3-6 of the specification as filed. Applicant asserts that no more detailed description of the flower of the new cultivar is required in the present application.
- R. Pollination requirements: No difference in pollination requirements between the new cultivar and the parent tree has been noted.
- S. Stem thickness: The fruit stem of the new cultivar is described in relative terms, as is the fruit stem of the parent variety and other related varieties. Applicant asserts that no more detailed description of the fruit stem of the new cultivar is required in the present application.
- T. Size of eye: The eye of the fruit of the new cultivar is described in relative terms, as is the eye of the fruit of the parent variety and other related varieties. Applicant asserts that no

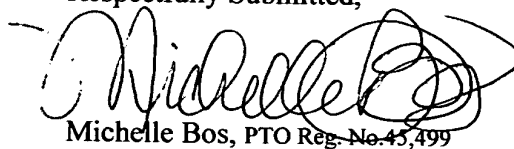
more detailed description of the eye of the fruit of the new cultivar is required in the present application.

- U.   Flesh texture: The flesh of the fruit of the new cultivar is described at page 5, lines 1 and 2 of the application as filed, as "medium firm, juicy and crisp." This description of the flesh of the fruit is complete and includes the terminology requested by the examiner. In order to remove any confusion, the reference to "medium" texture at page 5 line 2 has been deleted by the foregoing amendment.
- V.   Storage characteristics: The keeping quality of the fruit of the new cultivar is described at page 5, line 9 of the specification as filed. Applicant asserts that no more detailed description of the keeping quality of the fruit of the new cultivar is required in the present application.
- W.   Disease: Applicant declines to submit additional information relating to plant/fruit disease resistance/susceptibility.
- X.   Hardiness/Tolerance: Applicant declines to submit additional information in this regard.
- Y.   Claim: By the foregoing amendment, the claim has been amended as suggested by the examiner.

### **CONCLUSION**

Based on the foregoing amendment and remarks, the Applicant believes the application is now in condition for allowance. Such action is respectfully requested. If there are any remaining issues which could be addressed by telephone, the examiner is invited to contact the Applicant's representative who signs below.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Michelle Bos", with a large, stylized flourish at the end.

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Part #4

TITLE: APPLE VARIETY NAMED 'CJ07'

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5

LATIN NAME OF THE GENUS AND SPECIES

*Malus domestica*

VARIETY DENOMINATION

'CJ07'

10 BACKGROUND AND SUMMARY OF THE INVENTION

The present invention relates to a new and distinct apple variety named 'CJ07'. The new variety[, with the temporary denomination CJ07,] was discovered in January 1996 as a whole tree mutation of 'Sciearly' (PP11,092). The sport arose [on]as a tree planted in the discoverer's orchard in Hawkes Bay, New Zealand. The block of trees of 'Sciearly' was propagated on MM106 rootstock and had been established on the orchard as part of the original release of the 'Sciearly' variety in New Zealand.

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The mutation was originally noted due to its early development of bright red fruit colour. All fruit on the tree appeared to be consistently ahead in colour development than fruit on surrounding 'Sciearly' trees obtained from the same original source. The colour development was particularly notable considering the parent variety was selected for its early harvest season and dark red block colour.

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Budwood was taken from the original tree at the time of discovery and 140 trees were

propagated on MM106 rootstock, and 100 trees on M793 rootstock. These trees were planted on the discoverer's orchard property in winter 1997 and produced their first crop in January 1999. The colour and harvest maturity period of fruit on these trees was found to be consistent with the original tree, and true to type.

- 5           A further generation of trees were produced and were established in the discoverer's orchard in winter 1998. Fruit from these trees have exhibited the early fruit colour development and typical red colour of the original mutation over three seasons.

The new variety was determined to be distinct in comparison with the parent variety 'Sciearly' by the following characteristics:

- 10           fruit colour at harvest maturity which is a brighter, more intense red.  
an earlier harvest season by at least a week, determined on the basis of background colour development.

#### BRIEF DESCRIPTION OF PHOTOGRAPHS

- 15           The accompanying photographs show typical specimens of the young tree, flowers, foliage and fruit of the new variety as depicted in colours as nearly true as is reasonably possible to make the same in a colour illustration of this character.

[FIGURE]FIG. 1 shows a typical fruit of the apple variety 'CJ07' photographed in situ on the original tree of the whole tree mutation.

- 20           [FIGURE]FIG. 2 shows stem end and side views, showing both blush and shade sides, of a typical fruit of the apple variety 'CJ07'. The fruit shown in [Figure]FIG. 2 was obtained from trees asexually propagated from the original whole tree mutation.

[FIGURE]FIG. 3 shows a young tree (3<sup>rd</sup> leaf in the orchard) showing foliage and typical branching development.

[FIGURE]FIG. 4 shows typical flower and foliage of the variety 'CJ07'.

5 [MORPHOLOGICAL] DETAILED BOTANICAL DESCRIPTION OF THE VARIETY

The following is a detailed description of the new variety with colour terminology in accordance with The Royal Horticultural Society Colour Chart (RHSCC) 2001 edition.

The specimens described were grown at the discoverer's property at 1999 Pakowhai Road, RD 3, Napier, New Zealand. The observations were made in the 2000-2001 season on trees on MM.  
10 106 rootstock that were four years old at the time, and managed under standard orchard practice. It should be understood that the characteristics described will vary depending upon cultural practices, climatic conditions, planting location and season.

15 Tree: Medium size; spreading habit; bearing on both one-year wood and spurs; medium vigour on MM.106 rootstock.

Trunk: Moderately rough; circumference 240mm at a height of 200mm; the bark is grey-green RHSCC 197C when mature.

Branches: Bark moderately rough, grey-green RHSCC 197C when mature; moderate branching, in a whorl arrangement, the angle of branching being typically 20 degrees above the  
20 horizontal; approximately 5 spurs per 100mm of growth on two year old wood; length of annual growth 300 – 350 mm (measured on extension shoots arising from branches arising approximately 1.5m above ground level).

	Lenticels:	Medium size; average numbers.
5	Leaves:	Average length 106 mm; average width 53 mm; upward pose; upfolded to concave shape in cross section; serrate indentation of margin; medium glossiness on upper surface; weak pubescence on lower side; petiole length 30-45 mm; small to insignificant stipule size; colour of blade is green RHSCC 137A.
10	Flowers:	Medium blooming period, starting about 5 October for 2 weeks; medium size; five petals, margin of petals not touching; bud colour pink RHSCC 55b fading to white as the flower opens; five sepals small size, pointed, green with red tips; pubescent ovary.
	Fruit:	Examined at optimum. The main harvest period typically is from about 11 February until 25 February in Hawkes Bay, New Zealand.
	Size:	Large to very large; average width, 76 mm; average height, 62 mm; average weight, 200 g.
15	Shape:	Short globose, conical; symmetrical in side view; ribbing absent; medium degree of crowning at distal end.
	Cavity:	Average width, 36 mm.; average depth, 12 mm.
	Basin:	Average width, 28 mm; average depth, 90 mm.
	Stem:	Medium thickness; medium length, 24 mm.
20	Sepal:	Medium length; spacing, touching.
	Eye:	Size, medium; aperture, closed.
	Skin:	Smooth; bloom of skin, absent; greasiness of skin, slight; cracking tendency of skin,

absent; thickness, medium; background colour, yellow-green RHSCC 145C;  
lenticels, small.

Over Colour: Approximately 80% of skin surface; bright red, RHSCC 46B; some russet around  
stem end cavity.

5      Flesh:            Medium firm, juicy and crisp; tinged light yellow RHSCC 10D.

[Texture:        Medium.]

Flavour:        Sweet; medium acidity; mild aroma.

Quality:        Excellent.

Sinus:            Closed.

10      Seeds:            Five locules; 1 to 2 seeds per locule; 8-10 seeds total; medium size, average 10mm  
long and 5 mm wide; colour, brown RHSCC 175A.

Use:              Dessert.

Keeping quality: Excellent.

15      Production:    Early season, regular cropping, although slight tendency to biennial variation in  
production volume.

Management: Thinning of the crop load in early summer is recommended and tailoring pruning to  
account for the slight biennial tendency.

## CLAIM

[We claim a new and distinct apple variety substantially as described in the specification and illustrations above, arising as a whole tree mutation of the apple variety known as 'Sciearly' (U.S. Plant Pat. No. 11,092) and characterised by its brighter, more intense red fruit colour at harvest maturity and an earlier harvest season by at least a week, determined on the basis of background colour development.]

We claim:

A new and distinct apple tree, substantially as shown and described herein.

# ABSTRACT

A new and distinct apple variety is described. The variety results from a whole tree mutation of the variety 'Sciearly' (PP11,092). The fruit of the apple tree of this new variety has an attractive appearance characterised by intense red block colour, early harvest maturity, and large fruit size relative to other early season cultivars. The new variety is known by the [temporary] denomination 'CJ07'.